



Examiner
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

Applicant: Harding, et al.

Application No.: 09/781,733

Art Unit:3721

Filing Date: February 12, 2001

Confirmation No.:4193

Title: CUSHIONING CONVERSION MACHINE AND METHOD WITH
STOCK USAGE MONITORING

Examiner: Christopher R. Harmon

Docket No.: RANPP0170USA

SUPPLEMENTAL APPEAL BRIEF

Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
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Dear Sir:

This supplemental brief is submitted in triplicate and in connection with a Request for Reinstatement of Appeal for the above-identified application. The Appeal Brief filed on September 24, 2003 is herein incorporated by reference.

I. Real Party in Interest

Reference is made to the Appeal Brief filed September 24, 2003 at page 1 for information concerning the real party in interest.

II. Related Appeals and Interferences

Reference is made to the Appeal Brief filed September 24, 2003 at page 2 for information concerning related appeals and interferences.

III. Status of Claims

Reference is made to the Appeal Brief filed September 24, 2003 at page 2 for information concerning the status of the claims. A copy of claims 6-32 appears in Appendix A attached to the Appeal Brief filed September 24, 2003.

IV. Status of Amendments

Reference is made to the Appeal Brief filed September 24, 2003 at page 2 for information concerning the status of amendments.

V. Summary of Invention

Reference is made to the Appeal Brief filed September 24, 2003 at pages 2 to 6 for a summary of the invention.

VI. Applied Prior Art

U.S. Patent No. 5,571,067 to Ratzel; and
U.S. Patent No. 5,322,586 to McLean.

VII. Issues

A. Whether claims 6-11, 13, 15-24 and 27-32 are patentable under 35 U.S.C. § 102(e) over Ratzel.

B. Whether claims 12, 14, 25 and 26 are patentable under 35 U.S.C. § 103(a) over Ratzel in view of McLean.

VIII. Grouping of Claims¹

For the purposes of this appeal only, the claims are grouped as follows:

Issue A: Claims 7-9 and 15-19 stand or fall with claim 6. Claims 30 and 31 stand or fall with claim 22. The remaining claims (claims 6, 10-11, 13, 20-24, 27-29 and 32) do not stand or fall with any other claim.

Issue B: Claims 12, 14, 25 and 26 do not stand or fall with any other claim.

IX. Argument

Issue A

Claims 6-11, 13, 15-24 and 27-32 have been rejected as being anticipated by Ratzel. The Examiner contends:

Ratzel discloses a method of determining a total amount of stock material passing through a cushioning conversion machine comprising providing sheet material S, converting material S into cushioning product P, and monitoring passage of stock material through conversion machine 10. Information of the amount of stock material is stored, retrieved, and exchanged with conversion machine 10 by process controller/computer 11. Gear assembly 54 pulls the material from the former 52. The process controller sends and receives signal to the monitoring assembly (length measuring device 12) located near gear assembly 54 (monitors angular motion of the gear assembly). Thus signals are generated and stored and stored information corresponding with a cumulative length is retrieved by the processor to activate the cutting mechanism. For these purposes the information is considered automatically downloaded. See column 6, lines 48-65.

Ratzel discloses automatically downloading stored information to a remote processor through the use of a bar code system; see column 6, lines 53-58.

Regarding the arguments concerning a total length of material over a period of time which a plurality of cushioning products are made, Ratzel describes monitoring a length of material to be produced in

¹ This grouping is conditioned upon the Examiner not entering any new grounds of rejection and/or any new points of argument.

various lengths during a period of time while feeding out the desired length of each individual pad and cutting it to separate lengths; see column 6, lines 48-66. Information of desired cumulative lengths is stored and retrieved in order to operate the successive feeding operations.²

Reference is made to the Appeal Brief filed September 24, 2003 at pages 7-10 for arguments as to why the rejection under 35 U.S.C. § 102(e) should be reversed with respect to claims 6-11, 13 and 15-21. In addition to those arguments, remarks concerning the new grounds for rejection are presented below.

It is respectfully submitted that the Examiner has misapplied the reference since Ratzel fails to teach or reasonably suggest all aspects of the claims rejected under 35 U.S.C. § 102(e). In fact, the Examiner acknowledges the deficiencies in Ratzel as a teaching reference in the obviousness rejection of claims 12, 14, 25 and 26. More specifically, the Examiner states "Ratzel does not directly disclose monitoring/storing information of the cumulative process of producing more than one product."³

The Examiner seems to now argue that the association of a set of cushioning pads with a particular bar code for a prospective packing job and the subsequent making of those pads while individually measuring the length of each pad is somehow instructive of the rejected claims. Even though Ratzel is capable of making a set of pads in accordance with predetermined pad lengths, Ratzel does not determine total amount of stock material passed through a conversion machine during a time when multiple cushioning products are produced (e.g., at least the acts of storing and retrieving as recited in claim 6); does not determine total cumulative length of cushioning products produced over a period of time (e.g., at least the acts of storing and retrieving as recited in claim 20); and does not determine total length of dunnage products produced by a dunnage conversion machine during a period of time (e.g., at least the acts of storing and retrieving of claim 21). Ratzel's system would not be able

² Office action dated November 14, 2003, page 3.

³ Office action dated November 14, 2003, page 4.

to make any of these determinations even for a particular packing job, much less over longer periods of time, such as, over a worker's shift or over the course of a week.

Turning to independent claim 22, claim 22 has newly been rejected as being anticipated by Ratzel. Claim 22 includes the features of converting sheet stock material into a plurality of three-dimensional cushioning products, monitoring the stock material usage and storing information regarding the cumulative amount of stock material usage by the cushioning conversion machine during a period of time during which a plurality of three-dimensional cushioning products are made in a memory.

The fact that Ratzel controls a cushioning conversion machine to make a set of pads for a particular packing job while individually measuring the length of each pad is not instructive of that which is recited by claim 22. More specifically, at least the acts of monitoring and storing as recited in claim 22 are not taught or reasonably suggested by Ratzel. Again it is noted that the Examiner has acknowledged the deficiencies of Ratzel.⁴ Ratzel's system would not be able to determine the cumulative amount of stock material usage by the cushioning conversion machine during the production of products for a particular packing job or over longer periods of time.

Turning to the claims that depend from claim 22, claim 23 recites that the monitoring includes monitoring the passage of stock material through the cushioning conversion machine during the period of time. As indicated, Ratzel monitors generated cushioning product length on an individual cushioning product basis and not stock material passed through the conversion machine. Therefore, Ratzel does not teach or reasonably suggest the subject matter of claim 23.

Claim 24 recites that the stored information is indicative of the cumulative amount of stock material that passed through the cushioning conversion machine during a period of time during which multiple cushioning products are generated. As

⁴ Office action dated November 14, 2003, page 4 ("Ratzel does not directly disclose monitoring/storing information of the cumulative process of producing more than one product").

indicated, Ratzel does not teach or fairly suggest storing the claimed information and, as a result, does not anticipate the subject matter of claim 24.

Claim 27 recites that the method further comprises retrieving the stored information. Ratzel does not teach or fairly suggest retrieving stored information regarding the cumulative amount of stock material usage by a cushioning conversion machine during a period of time during which multiple cushioning products are made.

Claim 28 includes transmitting the stored information to a remote location. Ratzel does not teach or suggest transmitting stored information regarding the cumulative amount of stock material usage by a cushioning conversion machine during a period of time during which multiple cushioning products are made.

Claim 29 includes automatically downloading the stored information. Ratzel does not teach or suggest automatically downloading stored information regarding the cumulative amount of stock material usage by a cushioning conversion machine during a period of time during which multiple cushioning products are made.

Claim 32 recites that the memory is a non-volatile memory (a memory that retains data upon the loss of power). There is no indication in Ratzel to store the claimed information in a non-volatile memory associated with a cushioning conversion machine. Therefore, Ratzel does not anticipate the subject matter of claim 24.

As set forth above, Ratzel does not teach or fairly suggest the subject matter of claims 6-11, 13, 15-24 and 27-32. Also, unmotivated changes to Ratzel would be required to arrive at the invention as set forth in any of these claims. Accordingly, the rejection of claims 6-11, 13, 15-24 and 27-32 under 35 U.S.C. § 102(e) should be reversed.

Issue B

Claims 12, 14, 25 and 26 have been newly rejected as being obvious over Ratzel in view of McLean. The Examiner contends:

Ratzel does not directly disclose transmitting information to a personal computer or using a visual display, however McLean teaches a length measuring system with a visual display 8A-8H.

The measuring system stores the cumulative data over a period of time and produces an information display for adjusting the web feed process.

Regarding claims 25-26, Ratzel does not directly disclose monitoring/storing information of the cumulative process of producing more than one product, however McLean monitors an entire process and collects data over an extended period of producing more than one product, see figures 8E-8G.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include a data processing system with a visual display as taught by McLean in the invention of Ratzel in order to assist in monitoring the process of operation.⁵

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness. More specifically, the references, by themselves or in combination, fail to teach or reasonably suggest the subject matter of the claims rejected under 35 U.S.C. § 103(a). In addition, there is no motivation for making the proposed combination.

Claims 12 and 14 depend from claim 6. The deficiencies of Ratzel as a teaching reference with respect to claim 6 are discussed above and in the Appeal Brief filed September 24, 2003. For the purposes brevity, these deficiencies will not be repeated. McLean does not cure these deficiencies.

McLean is directed to a heat sealing machine where thermally fusible material is sealed around a liquid and/or a solid article. McLean addresses issues relating to determining the fusing parameters (e.g., pressure, time and temperature) needed for creating a satisfactory seal.⁶ To assist in achieving the goals of McLean, four basic conditions are monitored, including clamping pressure of sealing jaws,⁷ sealing dwell

⁵ Office action dated November 14, 2003, page 4.

⁶ McLean, column 1, line 34 to column 2, line 2.

⁷ McLean, column 2, lines 11-17 and column 3, line 66 to column 4, line 4.

time,⁸ angular position of an eccentric shaft used to actuate the sealing jaws,⁹ and temperature of the sealing jaws.¹⁰ Contrary to the assertion by the Examiner that "McLean teaches a length measuring system,"¹¹ no length measuring or stock material monitoring features are taught or reasonably suggested by McLean.

Although angular position of the eccentric shaft assembly is monitored in McLean using an encoder,¹² the shaft is used to actuate the sealing jaws and not to advance stock material. In fact, McLean's machine is a "laboratory" machine for experimentally simulating an industrial packaging process and is unconcerned with how much stock material may be consumed.¹³ Therefore, even if McLean were somehow adapted to make three-dimensional cushioning products, McLean would not be capable of measuring stock material usage. Moreover, even if one made the unmotivated combination of Ratzel and McLean, the claimed subject matter would not result.

With respect to claim 12, no retrieving act that includes transmitting the stored information regarding an indication of the total stock material that passes through the cushioning conversion machine would be present in the combination of Ratzel and McLean.

With respect to claim 14, no use of a visual display to view the stored information regarding an indication of the total stock material that passes through the cushioning conversion machine as part of the retrieving act of claim 6 would be present in the combination of Ratzel and McLean.

⁸ McLean, column 4, lines 8-11.

⁹ McLean, column 4, lines 18 to 25.

¹⁰ McLean, column 9, lines 1-8.

¹¹ Office action dated November 14, 2003, page 4.

¹² McLean, column 6, lines 38-41 and column 9, lines 29 to 34.

¹³ McLean, abstract and column 1.

Claim 25, which depends from claim 22, recites that the monitoring includes monitoring the cumulative length of cushioning products produced by the cushioning conversion machine during the period of time. As previously stated, Ratzel monitors generated cushioning product length on an individual cushioning product basis and, as acknowledged by the Examiner,¹⁴ Ratzel does not monitor cumulative length of cushioning products. McLean does not monitor cumulative length of heat sealable material, much less cushioning products. The data depictions illustrated in figures 8E to 8G of McLean and referred to by the Examiner do not relate to stock material usage. Rather, figures 8E and 8F illustrate graphs of pressure versus time.¹⁵ Figures 8G and 8H show pressure, dwell time and temperature information.¹⁶ Therefore, even if the combination of Ratzel and McLean were made, the claimed subject matter would not result.

Claim 26 recites that the stored information is indicative of the cumulative length of cushioning products produced by the cushioning conversion machine during a period of time during which multiple cushioning products are generated. As described above and as stated by the Examiner,¹⁷ Ratzel does not store the claimed information. The fusing parameters assessed and possibly stored by McLean are described above and do not include the claimed indication of cumulative length. Therefore, even if the combination of Ratzel and McLean were made, the claimed subject matter would not result.

¹⁴ Office action dated November 14, 2003, page 4.

¹⁵ See also, McLean at column 10, lines 56-60. The only references to length in McLean are an indication that units can be expressed in "American" units (e.g., pounds per square inch) or in metric units and that the length of the seal bar can be entered by user action (figure 8C and column 10, lines 7-17).

¹⁶ See also, McLean at column 11, lines 31-38.

¹⁷ Office action dated November 14, 2003, page 4.

As set forth above, Ratzel, McLean and their combination do not teach or fairly suggest the subject matter of claims 12, 14, 25 and 26. Even if their combination were made, the subject matter of these claims would not result and unmotivated changes to the combination would be required to arrive at the subject matter of claims 12, 14, 25 and 26.

Also, motivation to make the combination of Ratzel and McLean is lacking. McLean is from the package sealing arts where thermal fusing parameters (e.g., time, temperature and pressure) are an issue. Accordingly, McLean is directed primarily to determining which combination of fusing parameters may achieve satisfactory sealing of liquid and/or solid articles. In addition, McLean does not recognize the advantages of tracking cumulative stock material usage in the claimed manner, such as for inventory tracking, worker productivity tracking, invoice generation, contract policing and so forth. McLean's machine is a "laboratory" machine for experimentally simulating an industrial packaging process and is unconcerned with how much stock material may be consumed.¹⁸

In Ratzel, the issue addressed is how to make a precise length of cushioning product. McLean does not provide any techniques for improving the generation of a cushioning product of a desired length. Accordingly, one of ordinary skill in the art of converting stock material to cushioning products and knowledgeable of Ratzel would have little reason to look to McLean to assist in monitoring the process of operation as asserted by the Examiner.

Appellants are interested in cumulative stock material usage information at the conclusion of a period of time during which multiple cushioning products are generated to address issues related to packing facility management and stock material vendor/packing facility interaction. Neither of the references are concerned with such issues and their proposed combination is, at best, an impermissible use of hindsight to

¹⁸ McLean, abstract and column 1.

attempt to reconstruct that which is claimed from references originating from diverse arts.

Accordingly, the rejection of claims 12, 14, 25 and 26 under 35 U.S.C. § 103(a) should be reversed.

X. Conclusion

In view of the foregoing, the Appellants respectfully submit that the claims are patentable over the applied art and that the rejections should be reversed.

This brief is being submitted in triplicate. Should an extension of time be necessary, petition is hereby made and the Commissioner is authorized to charge any fees to Deposit Account No. 18-0988 Order No. RANPP0170USA.

Respectfully submitted,
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